

AMENDMENTS TO THE CLAIMS

- 1.(Currently amended) Device for detecting a body fall into a swimming pool, the device comprising a main housing, a compression chamber and a probe, the probe (1) which is being submerged in the water of the swimming pool and serves to retransmit aquatic waves varying in pressure in a the compression chamber, (8)-characterized in that it wherein the device further comprises two identical pressure sensors (2, 83) of the same type placed respectively in the compression chamber (8) and inside a the main housing, wherein the main housing includes (7)-comprising an electronic card (4) which is able to calculate the differential subtract the signal between of the two sensors in order to eliminate the vibrations as well as the noise caused by the wind on the housing (7).
- 2.(Currently amended) Detection device according to claim 1, characterized in that wherein the electronic card (4) is able to control, in the event of detection of a fall, a siren (6) inside the housing (7).
3. (Currently amended) Detection device according to claim 1 or 2, characterized in that wherein the electronic card (4) is able to control, in the event of detection of a fall, a radio transmitter-(5).
- 4.(Currently amended) Detection device according to one of claims 1, 2 or 3, characterized in that wherein the pressure sensors (2, 83) are of the piezoelectric type.

5.(Currently amended) Detection device according to ~~one of~~ claims 1, 2 or 3 to 4,
~~characterized in that~~ wherein the electronic card (4) comprises a band-pass filter (11) centred at one hertz with a narrow bandwidth, the filter being able to reject the signals produced by the filtration of the swimming pool, the fall of an object such as a ball, the cleaning of the swimming pool by a robot, rain and by a significant part of the waves produced by the wind.

6.(Currently amended) Detection device according to ~~one of~~ claims 1, 2 or 3 to 5,
~~characterized in that~~ wherein the electronic card (4) comprises a microcontroller (13) which is able to reduce the frequency window of the signals processed by a timer counting the interval separating two signals originating from the pool, the microcontroller rejecting the signals if the period is not within a predetermined interval.

7.(Currently amended) Detection device according to ~~one of~~ claims 1, 2 or 3 to 6,
~~characterized in that~~ wherein the electronic card (4) comprises a microcontroller (13) which is able to count the number of items of valid information.

8.(Currently amended) Detection device according to claim 7, ~~characterized in that~~ wherein the number of successive and not missing items of valid information for detecting a fall is comprised between 2 and 5.